

Piedmont Regional Office

JAN 25 2012

RECEIVED

LAND APPLICATION SITE

JOHN E MEANS SITE

DWJEM 1-4

DINWIDDIE COUNTY

RECYC SYSTEMS, INC

PART D-VI BIOSOLIDS APPLICATION AGREEMENT

This biosolids application agreement is made on 6-23-10 between John E. Means, referred to here as "landowner", and Recyc Systems, Inc, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of biosolids on landowner's land in amounts and in a manner authorized by (VPA) (VPDES) permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of biosolids will be beneficial in providing fertilizer and soil conditioning to the property and consents to the application of biosolids on his property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health:

1. Public access to landowner's land upon which biosolids have been applied should be controlled for at least 30 days following any application of biosolids and no biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
2. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil, or 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation. Other food crops, feed crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
3. Following biosolids application to pasture or hayland sites, meat producing livestock should not be grazed or fed chopped foliage for 30 days and lactating dairy animals should be similarly restricted for a minimum of 60 days. Other animals should be restricted from grazing for 30 days;
4. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia to be supplied to the landowner by the permittee at the time of application of biosolids to a specific permitted site;
5. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).
6. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

The landowner agrees to allow county officials access to the area of the property permitted for biosolids, whenever necessary, to complete site inspections related to the scheduled biosolids program.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for biosolids application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner Signature:

John E. Means

Mailing Address:

5819 WHITE OAK RD

WILSONS, VA 23894

Phone: 804-265-8175

Farm Operator Signature:

Mailing Address:

SAME AS

ABOVE

Phone: _____

Permittee:

Recyc Systems, Inc

Mailing Address:

P.O. Box 562

Remington Virginia 22734

(540) 547-3300

RECYC SYSTEMS, INC

PART D-VI BIOSOLIDS APPLICATION AGREEMENT

This biosolids application agreement is made on 10-7-11 between SUSAN R. MEANS, referred to here as "landowner", and Recyc Systems, Inc., referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of biosolids on landowner's land in amounts and in a manner authorized by (VPA) (VPDES) permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of biosolids will be beneficial in providing fertilizer and soil conditioning to the property and consents to the application of biosolids on his property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health:

1. Public access to landowner's land upon which biosolids have been applied should be controlled for at least 30 days following any application of biosolids and no biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
2. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil, or 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation. Other food crops, feed crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
3. Following biosolids application to pasture or hayland sites, meat producing livestock should not be grazed or fed chopped foliage for 30 days and lactating dairy animals should be similarly restricted for a minimum of 60 days. Other animals should be restricted from grazing for 30 days;
4. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia to be supplied to the landowner by the permittee at the time of application of biosolids to a specific permitted site;
5. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare);
6. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

The landowner agrees to allow county officials access to the area of the property permitted for biosolids, whenever necessary, to complete site inspections related to the scheduled biosolids program.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for biosolids application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Susan R. Means
Landowner Signature:

SUSAN R. MEANS
Landowner Print Name

John E. Means
Farm Operator Signature:

JOHN E. MEANS
Farm Operator Print Name:

Permittee:
Recyc Systems, Inc.

Mailing Address:
5819 WHITE OAK RD.

WILSONS, VA. 23894

Phone: 804-265-8175

Mailing Address:
5819 WHITE OAK RD.

WILSONS, VA. 23894

Phone: 804-265-8175

Mailing Address:
P.O. Box 562
Remington Virginia 22734
(540) 547-3300

FARM DATA SHEET

SITE NAME:	John E Means	COUNTY:	Dinwiddle
OWNER:	John E and Susan R Means	OPERATOR:	John E Means
OWNERS ADDRESS:	5819 White Oak Road Wilsons, VA 23894	OPERATORS ADDRESS:	5819 White Oak Road Wilsons, VA 23894
OWNERS TELEPHONE:	804-265-8175	OPERATORS TELEPHONE:	804-265-8175
GENERAL FARM TYPE:	Hay/Pasture	CELLPHONE:	
HEAD CATTLE:	25	EMAIL:	
LAGOON or SLURRY:	None	LATITUDE:	37°05'22"
TOPO QUAD:	Darvills	LONGITUDE:	77°48'03"
COMMENTS:			

John E. Means Site

[illegible]

RECYC SYSTEMS, INC

FIELD DATA SHEET

Field Identification	Gross Acres	Environmentally Sensitive Soils				Hydro Map	Tax Map #	FSA Tract #
		Water Table	Bed Rock/Shallow	Surf/Leach	Freq Flood			
DWJEM 1	19.9	9B(Jan-Apr)	-	-	-	CU19	TM39,P35B,41A	T5317
DWJEM 2	5.6	-	-	-	-	CU19	TM39,P35B,41A	T5317
DWJEM 3	13.8	9B(Jan-Apr)	-	-	-	CU19	TM39,41A	T5317
DWJEM 4	15.7	9B(Jan-Apr)	-	-	-	CU19	TM39,41A	T5317
TOTAL ACRES IN SITE	55.0							



www.aaleastern.com

A&L Eastern Laboratories, Inc.

7621 Whitespine Road, Richmond, Virginia 23237 (804) 743-8401 Fax (804) 271-6446

Send To: RECYC SYSTEMS INC
SUSAN TRUMBO
8455 WHITESHOP RD
CULPEPER VA 22701

Grower: JOHN E MEANS/DWJEM
DINWIDDIE

Submitted By: J B CRENSHAW
Farm ID:

SOIL ANALYSIS REPORT

Analytical Method(s):
Mehlich 3

Date Received: 10/04/2011

Date Of Analysis: 10/05/2011

Date Of Report: 10/06/2011

Sample ID Field ID	Lab Number	Organic Matter			Phosphorus				Potassium		Magnesium		Calcium		Sodium		pH		Acidity	C.E.C.
		%	Rate	ENR lbs/A	Mehlich 3 ppm	Rate	Reserve ppm	Rate	K ppm	Rate	Mg ppm	Rate	Ca ppm	Rate	Na ppm	Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
1 DWJEM 1	00442	2.4	L	92	34	M			57	L	109	H	584	M			6.2	6.88	0.5	4.5
2 DWJEM 2	00443	2.1	L	85	13	VL			83	M	131	H	555	M			6.2	6.87	0.6	4.6
3 DWJEM 3	00444	2.0	L	84	17	L			28	VL	77	M	640	H			6.1	6.87	0.6	4.5
4 DWJEM 4	00445	2.0	L	83	20	L			63	L	137	H	644	M			6.5	6.89	0.4	4.9

Sample ID Field ID	Percent Base Saturation					Nitrate		Sulfur		Zinc		Manganese		Iron		Copper		Boron		Soluble Salts		Chloride		Aluminum
	K %	Mo %	Co %	Na %	H %	NO ₃ -N ppm	Rate	S ppm	Rate	Zn ppm	Rate	Mn ppm	Rate	Fe ppm	Rate	Cu ppm	Rate	B ppm	Rate	SS ms/cm	Rate	Cl ppm	Rate	Al ppm
1 DWJEM 1	32	20.2	sat y		12.2																			
2 DWJEM 2	40	23.7	00.3		12.2																			
3 DWJEM 3	1.6	14.3	71.1		13.8																			
4 DWJEM 4	33	23.3	05.7		7.4																			

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A. Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: A&L Eastern Laboratories, Inc.

by: *Paula McGeary*

Paula McGeary

Report Number: 11-277-0516

Account Number: 70594



www.aaleastern.com

A&L Eastern Laboratories, Inc.

7031 Whitespine Road, Richmond, Virginia 23237 (804) 743-5401 Fax (804) 271-0441

Send To: RECYC SYSTEMS INC
SUSAN TRUMBO
8455 WHITESHOP RD
CULPEPER VA 22701

Grower:
JOHN E MEANS/DWJEM
DINWIDDIE

Submitted By: J B CRENSHAW
Farm ID:

Date Received: 10/04/2011

Date Of Report: 10/06/2011

SOIL FERTILITY RECOMMENDATIONS

Sample ID Field ID	Intended Crop	Yield Goal	Urea Tons/A	Nitrogen N lb/A	Phosphate P ₂ O ₅ lb/A	Potash K ₂ O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
1 tXo3E* I)	Adjust pH to 6.0	0	1.3				0						
2 DUSJEM 2	Adjust pH to 6.0	0	1.3				0						
3 nLrJtr 3	Adjust pH to 6.0	0	1.3				3						
4 IWSCTM	Adjust pH to 6.0	0	1.3				0						

Comments:

Sample(s) 3:

Apply dolomitic lime to raise pH and improve the magnesium level.

If dolomitic lime is not used, apply required magnesium with magnesium oxide, Epsom Salts, K-Mag or Sul-PO-Mag.

"The recommendations are based on research data and experience, but NO GUARANTEE or WARRANTY expressed or implied, concerning crop performance is made."

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Paulie McGroary

Paulie McGroary

NUTRIENT MANAGEMENT PLAN IDENTIFICATION

Operator

John Means
5819 White Oak Road
Wilsons, VA 23894
phone #

Integrator: None

Farm Coordinates

Easting: 0, Northing: 0, zone: 17

Watershed Summary

watershed: CU19
county: Dinwiddie

Nutrient Management Planner

Recyc Systems Inc.
Recyc Systems, Inc
P.O. Box 562
Remington, Virginia 22734
540.547.3300

Certification Code: None

Acreage Use Summary

Total Acreage in this plan: 55.

Cropland: 0.
Hayland: 55.
Pasture: 0.
Specialty: 0.

Livestock Summary

Beef Cattle 0
Dairy Cattle 0
Poultry 0
Swine 0
Other 0

Manure Production Balance

	Imported	Produced	Exported	Used	Net
kgals	0.	0.	0.	0.	0.
tons	0.	0.	0.	0.	0.

Run written 12/28/2011

Valid until 12/28/2011

Signature: _____

Planner

date

THE PLANNER IS NOT STATE CERTIFIED

Nutrient Management Plan Balance Sheet
(Spring, 2012-Summer, 2013)
John E Means
Planner: Recyc Systems Inc.

Tract: 5317

Location: Dinwiddie

(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
7,8,10/DWJEM 1(N)	20/20	2012	Hay/Pasture	100-50-110	0/0				100-50-110	N/A			
9/DWJEM 2(N)	6/6	2012	Hay/Pasture	100-80-95	0/0				100-80-95	N/A			
0, 10/DWJEM 3(N)	14/14	2012	Hay/Pasture	100-70-130	0/0				100-70-130	N/A			
10/DWJEM 4(N)	16/16	2012	Hay/Pasture	100-70-110	0/0				100-70-110	N/A			

Commercial Application Methods:

br - Broadcast ba - Banded sd - Sidedress

Notes:

THE PLANNER IS NOT STATE CERTIFIED

John E Means Narrative

This is John E. Means farm located in Dinwiddie County. The farm consists of hay/pasture fields.

This is a partial plan written for the purpose of obtaining a biosolids permit. Biosolids applicaion has not been shown since it is uncertain when a permit will be obtained. the partial plan will be revised prior to biosolids application to obtain a target biosolids application rate.

Soil Test Summary

Tract	Field	Acre	Date	P2O5	K2O	Lab	Soil pH	Lime Date	rec. lime tons/Ac
5317	DWJEM 1	20	2011-Fa	M (34 P ppm)	M- (57 K ppm)	A&L Mill	6.2		
5317	DWJEM 2	6	2011-Fa	L (13 P ppm)	M (83 K ppm)	A&L Mill	6.2		
5317	DWJEM 3	14	2011-Fa	L+ (17 P ppm)	L (28 K ppm)	A&L Mill	6.1		
5317	DWJEM 4	16	2011-Fa	L+ (20 P ppm)	M- (63 K ppm)	A&L Mill	6.5		

Field Productivities for Major Crops

Tract Name	Tract/ Field	Field Name	Acres	Predominant Soil Series	Corn	Small Grain	Alfalfa	Grass Hay	Environmental Warnings
5317	5317/7,8, 10	DWJEM 1	20	Appling	IVa	II	III	III	
	5317/9	DWJEM 2	6	Appling	IVa	II	III	III	
	5317/0, 10	DWJEM 3	14	Helena	IVb	IV	Not Suited	III	
	5317/10	DWJEM 4	16	Helena	IVb	III	III	III	

Yield Range

Field Productivity Group	Corn Grain Bu/Acre	Barley/Intensive Wheat Bu/Acre	Std. Wheat Bu/Acre	Alfalfa Tons/Acre	Grass/Hay Tons/Acre
I	>170	>80	>64	>6	>4.0
II	150-170	70-80	56-64	4-6	3.5-4.0
III	130-150	60-70	48-56	<4	3.0-3.5
IV	100-130	50-60	40-48	NA	<3.0
V	<100	<50	<40	NA	NA

Farm Summary Report

Plan: New Plan Spring, 2012 - Summer, 2013

Farm Name: John E Means
Location: Dinwiddie
Specialist: Recyc Systems Inc.
N-based Acres: 55.0
P-based Acres: 0.0

Tract Name: 5317
FSA Number: 5317
Location: Dinwiddie

Field Name: DWJEM 1
Total Acres: 19.90 Usable Acres: 19.90
FSA Number: 7,8,10
Tract: 5317
Location: Dinwiddie
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary
N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K		Lab
Fa-2011	6.2	M(34 P ppm)	M-(57 K ppm)	A&L MIII	

Soils:

PERCENT	SYMBOL	SOIL SERIES
---------	--------	-------------

72	2B	Appling
16	2C	Appling
12	9B	Helena

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
2012-Sp	2.1 * ton	Hay/Pasture - No Till

Field Name: DWJEM 2

Total Acres: 5.60 Usable Acres: 5.60

FSA Number: 9

Tract: 5317

Location: Dinwiddie

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

Conservation Practices:

Pasture (>75% cover)

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K		Lab
Fa-2011	6.2	L(13 P ppm)	M(83 K ppm)	A&L Mill	

Soils:

PERCENT	SYMBOL	SOIL SERIES
97	2B Appling	
3	2C Appling	

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
2012-Sp	2.2 ton	Hay/Pasture - No Till

Field Name: DWJEM 3

Total Acres: 13.80 Usable Acres: 13.80

FSA Number: 0, 10

Tract: 5317

Location: Dinwiddie

Slope Class: B Hydrologic Group: C

Riparian buffer width: 0 ft

Distance to stream: 0 ft

Conservation Practices:

Pasture (>75% cover)

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K		Lab
Fa-2011	6.1	L+(17 P ppm)	L(28 K ppm)	A&L MIII	

Soils:

PERCENT	SYMBOL	SOIL SERIES
2	2B	Appling
27	2C	Appling
17	4B	Cecil
2	4C	Cecil
51	9B	Helena

Field Warnings:**Crop Rotation:**

PLANTED	YIELD	CROP NAME
2012-Sp	2.0 * ton	Hay/Pasture - No Till

Field Name: DWJEM 4
Total Acres: 15.70 **Usable Acres:** 15.70
FSA Number: 10
Tract: 5317
Location: Dinwiddie
Slope Class: C **Hydrologic Group:** B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:
Pasture (>75% cover)

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
Fa-2011	6.5	L+(20 P ppm)	M-(63 K ppm)	A&L MIII

Soils:

PERCENT	SYMBOL	SOIL SERIES
10 2	2B Appli	Appling
23 2	2C Appli	Appling
31 4	4C Ceci	Cecil
36 9	9B Helen	Helena

Field Warnings:

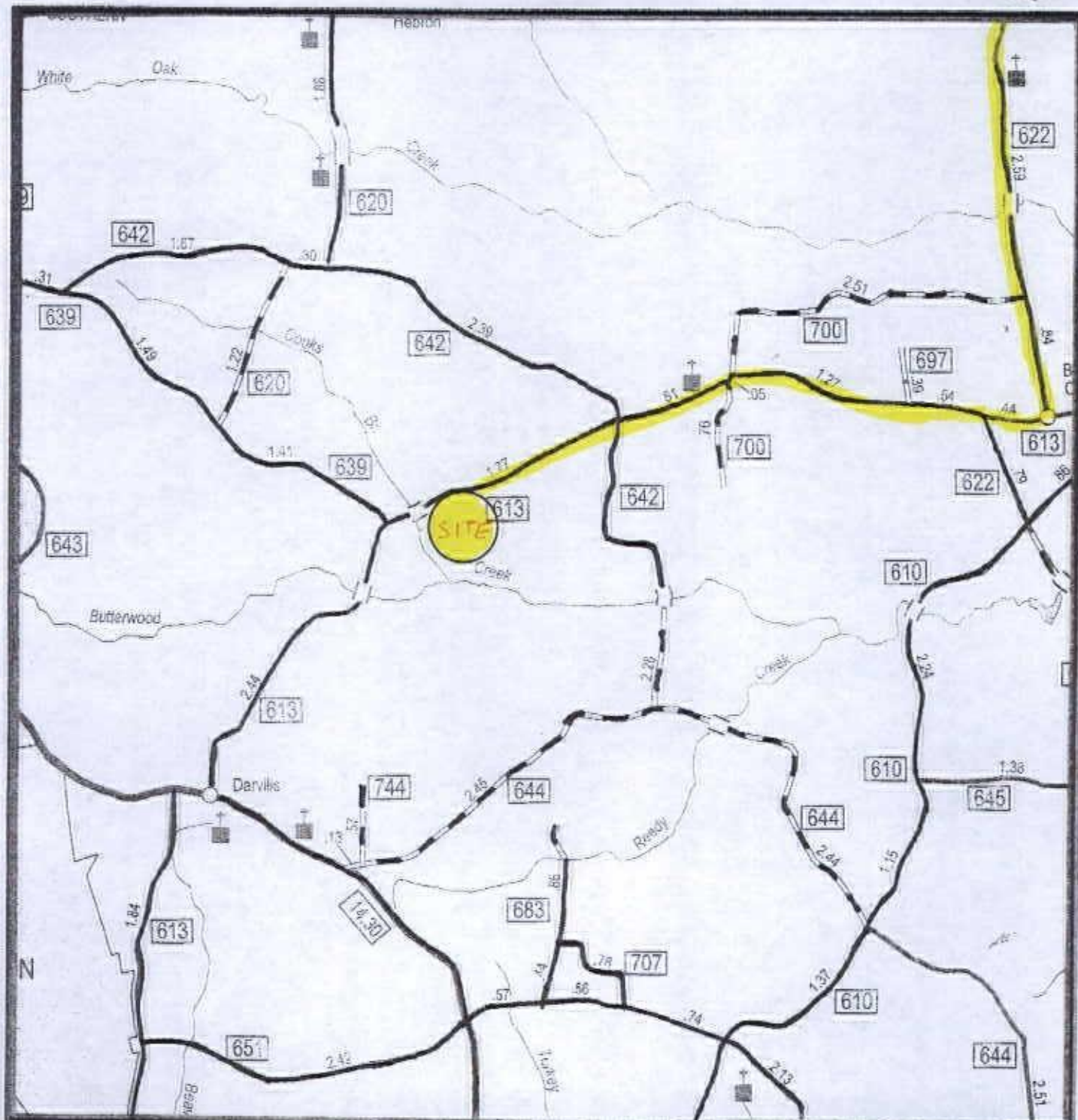
Crop Rotation:

PLANTED	YIELD	CROP NAME
2012-Sp	2.1 * ton	Hay/Pasture - No Till

MAPS

Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale:

1 inch = 1 mile

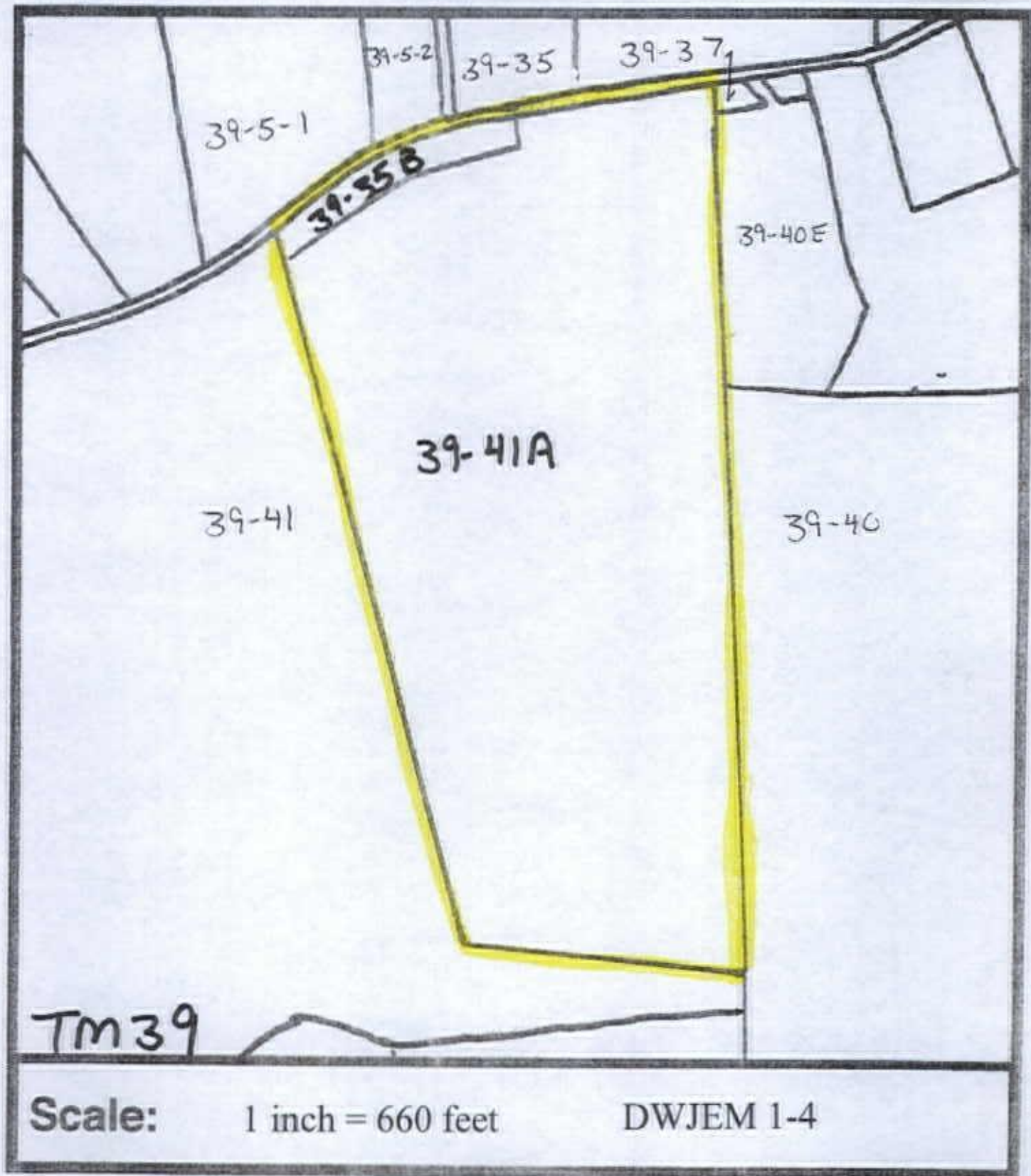
DWJEM 1-4

VICINITY MAP



Recyc SystemsTM Inc.

(Biosolids Land Application)



TAX MAP



ADJOINING LANDOWNERS

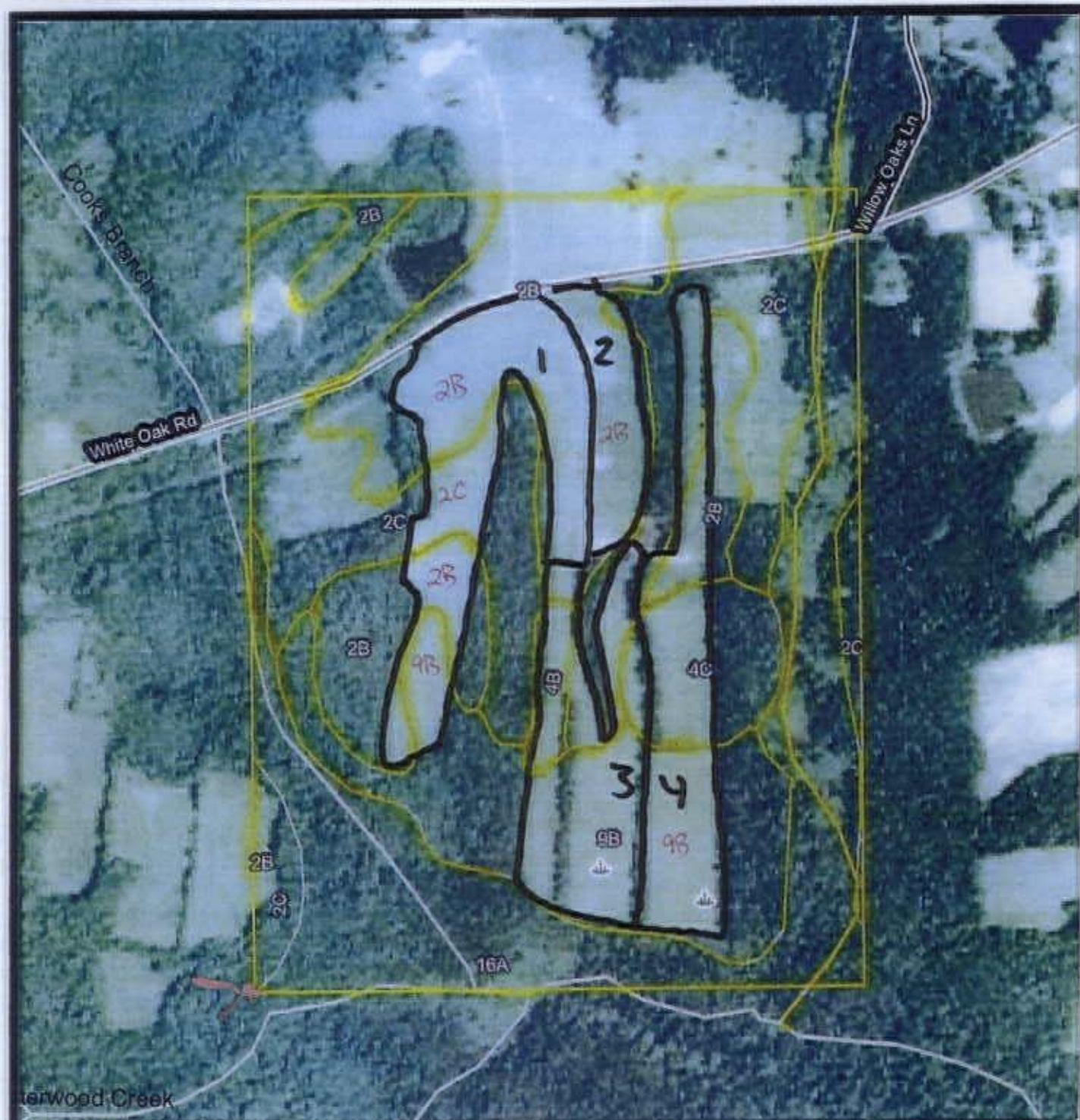
JOHN E MEANS SITE

DINWIDDIE COUNTY

Tax Map	Parcel #	Owner Name(s)
39	5-1	Robert M. Taylor
	5-2	Jeffrey C. Hill
	35	William P. & Daphne R. Collier
	37	Kenneth U. Hobbs
	40	Edward A. Givens
	40E	Edward A. Givens
	41	William T. & Marcia M. Cantrell

Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale:

1 inch = 660 feet

DWJEM 1-4

SOIL MAP



Recyc SystemsTM Inc.

(Biosolids Land Application)



T5317

Scale:

1 inch = 660 feet

DWJEM 1-4

AERIAL MAP



Legend for Site Plan



House and Well



Well / Spring



Perennial Streams & Surface



Wet Spot



Intermittent Stream / Drainage



Trees and Woods



Private Drive



Rock / Rocky Area



Sinkhole



Severely Eroded Spot



State Road



Field Boundary / Fence



Property Line



Slope

Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale:

1 inch = 660 feet

DWJEM 1-4

SITE PLAN



Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale:

1 inch = 2,000 feet

DWJEM 1-4

TOPOGRAPHIC MAP

